03050103-030

(Twelvemile Creek/Waxhaw Creek)

General Description

Watershed 03050103-030 is located in Lancaster County and consists primarily of ***Twelvemile Creek, Waxhaw Creek***, and their tributaries. The watershed occupies 30,043 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Appling-Vance-Cecil-Enon series. The erodibility of the soil (K) averages 0.32, and the slope of the terrain averages 7%, with a range of 2-15%. Land use/land cover in the watershed includes: 84.6% forested land, 10.8% agricultural land, 3.6% scrub/shrub land, 0.4% water, 0.4% barren land, and 0.2% urban land.

The Twelvemile Creek watershed originates in North Carolina and drains into the Catawba River. Cow Branch and Tarkill Branch (Long Branch) flow into Sixmile Creek, which drains into Twelvemile Creek. Twelvemile Creek also accepts drainage from Rone Branch, Millstone Branch, and Todd Branch before entering the Catawba River. Waxhaw Creek accepts drainage from Causar Creek (Andrew Jackson State Park Lake) and Mill Branch (Foster Branch) flows into the Catawba River downstream of Twelvemile Creek. Andrew Jackson State Park is another natural resource in the area. There are a total of 81.7 stream miles and 97.4 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
CW-176	P/W	FW	SIXMILE CREEK AT S-29-54
CW-083	S/INT	FW	TWELVEMILE CREEK AT S-29-55 0.3 MI NW OF VAN WYCK
CW-145	W/INT	FW	WAXHAW CREEK AT S-29-29

*Six**mile Creek (CW-176)*** - Aquatic life uses are fully supported; however, there is a significant decreasing trend in dissolved oxygen concentration, and significant increasing trends in five-day biochemical oxygen demand, turbidity, total phosphorus concentration, and total nitrogen concentration. There is a significant decreasing trend in pH. Recreational uses are not supported due to fecal coliform bacteria excursions.

Twelvemile Creek (CW-083) – Aquatic life uses are not supported due to turbidity excursions and occurrences of copper in excess of the aquatic life acute criterion. There is also a significant increasing trend in five-day biochemical oxygen demand. There is a significant decreasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Waxhaw Creek (CW-145) - Aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life acute criterion. There is also a significant decreasing trend in dissolved oxygen concentration. Recreational uses are not supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME*** / ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** / ***TYPE*** / ***COMMENT***
CAUSAR CREEK HEALTH SOUTH CENTRAL CAROLINAS PIPE #: 001 FLOW: 0.008	SC0041807 MINOR DOMESTIC (HEALTH SOUTH)

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME / ***FACILITY TYPE***	***PERMIT #*** / ***STATUS***
COMBS SHORT-TERM C&D LANDFILL CONSTRUCTION	292903-1301 -------
FRANK LANDFILL CONSTRUCTION	292900-1301 -------
HOOD SHORT TERM C&D LANDFILL CONSTRUCTION	292902-1301 -------

Land Application Sites

LAND APPLICATION SYSTEM / ***FACILITY NAME***	***ND#*** / ***TYPE***
OXYDATION POND JINGLE JUNGLE INC.	ND0067989 DOMESTIC

Mining Activities

MINING COMPANY / ***MINE NAME***	***PERMIT #*** / ***MINERAL***
ASHE DIV., BORAL BRICKS, INC. MILLER PIT	0003-57 SHALE
NORWOOD TRUCKING & GRADING, INC. NORWOOD TRUCKING & GRADING, INC.	1250-57 SAND
FRANK WILLIAMS COMPANY FRANK WILLIAMS MINE	1109-57 CLAY, TOPSOIL

Growth Potential

This area is adjacent to rapidly growing sections of the Charlotte urban area and has good access via the four-lane U.S. Hwy. 521. Public sewer has now become available in the northern area of the watershed to compliment existing public water. The result of this new infrastructure has been an explosion of residential and commercial growth. The Del Webb Sun City project is a good example of this growth, which has fueled the approval of thousands of new residential lots in a variety of planned

communities and subdivisions. This area of Lancaster County is currently experiencing rapid growth. This trend is expected to continue over the next several years.

Watershed Protection and Restoration

Special Projects

NPS Assessment and TMDL for Phosphorus in the Catawba River Basin

In June 2003, researchers at the University of South Carolina completed a §319-funded study of nutrient loading in the lower Catawba River basin using the WARMF (Watershed Analysis Risk Management Framework) water quality model. The model estimated that the lower Catawba (defined as the Catawba River downstream of the Lake Wylie dam and all tributaries through Lake Wateree) received an average load of 2100 kg/day of phosphorus for the 1996-1998 study period. Of this load, 46% was from point sources, 39% was from nonpoint sources, and 15% was from Lake Wylie. SCDHEC is currently using the WARMF model, which is being updated through 2003, to further refine nonpoint sources, to determine loading rates that would allow the reservoirs to meet the phosphorus standard (TMDLs), and to calculate wasteload allocations for phosphorus for the impaired reservoirs. Cooperators in the study include Catawba River stakeholders, North Carolina DWQ, and EPA Region 4.

Sustainable Environment for Quality of Life

Sustainable Environment for Quality of Life (SEQL) is a USEPA program, which addresses regional environmental planning through the Centralina Council of Governments and the Catawba Regional Council of Governments. SEQL is intended to assist local governments in the 15-county Charlotte/Gastonia/Rock Hill region to work together to promote economic growth while protecting the environment. Multiple air and water quality issues are analyzed simultaneously, while addressing transportation, water, land use, energy use, population growth and economic development. The Department has supported the program by providing air and water quality information. More information about SEQL is available at the following website: http://centralina.org/seql/background.htm.